

Using LEHD data to examine turnover patterns

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Today's webinar

Agenda

Measuring turnover using LED data

Measuring churn

Differences in turnover rates by industry

Shifts in turnover patterns over the business cycle

QWI statistics identify hires and separations based on worker earnings histories

Employment Change, Individual

Measures	-5	-4	-3	-2	-1	t	+1	+2	+3	+4	+5
Hires All					X						
Hires New		X	X	X	X						
Hires Recalls		•	•	•	X						
All Hires, End-of-Quarter employed					X						
Separations, Beginning-of-Quarter Employed							X				
Separations							X				
Hires All (Stable)				X							
Hires New (Stable)	X	X	X	X							
Separations (Stable)							X				
Separations (Stable), next quarter								X			

Average hiring and separation rates

	Samples			
	All jobs		Full-quarter jobs	
	Mean	Std Dev	Mean	Std Dev
Rates				
Hires	0.238	1.304	0.102	0.066
Separations	0.254	1.317	0.103	0.184
Churn	0.165	1.267	0.052	0.089

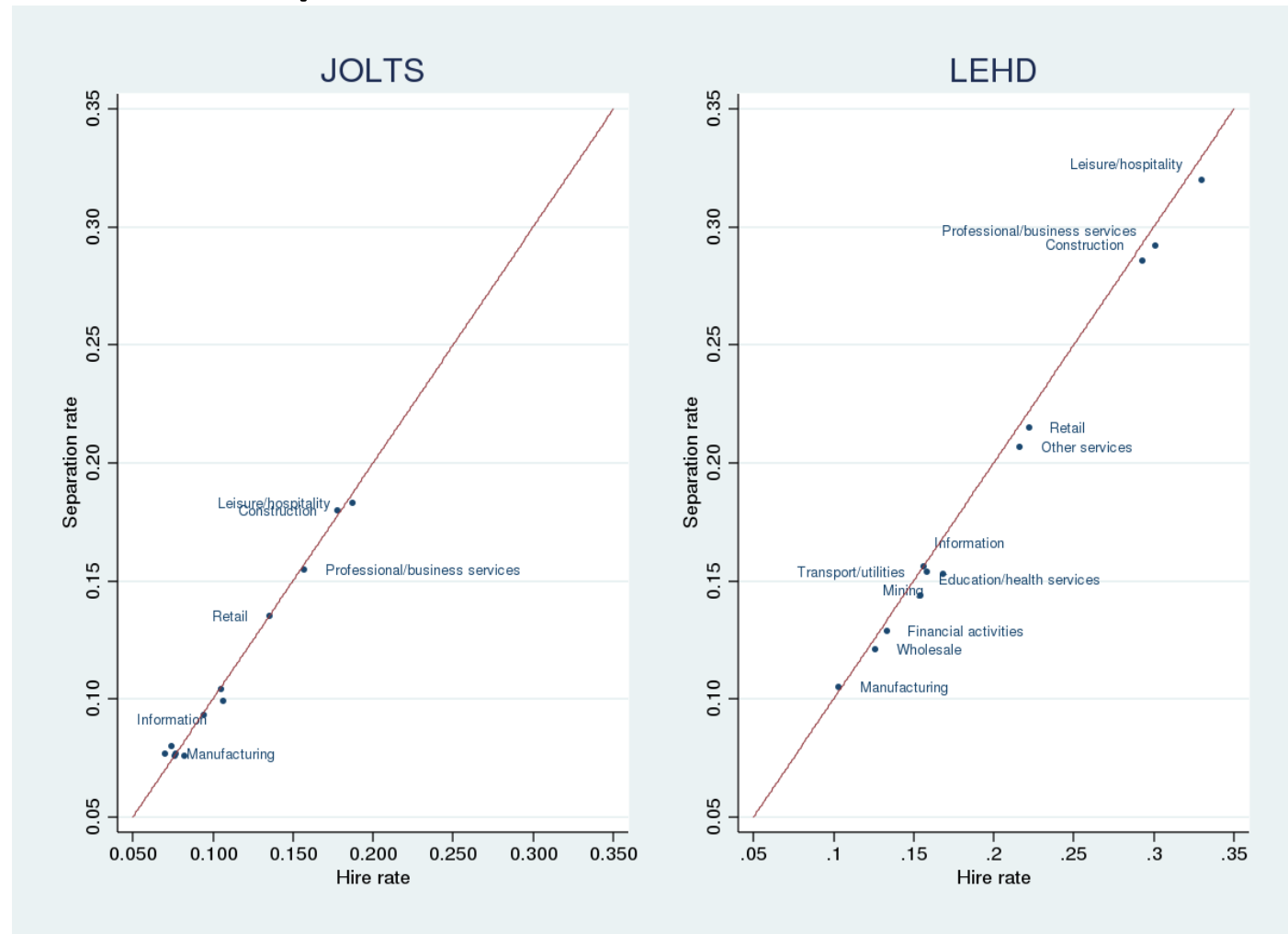
Rates calculated by dividing hire and separation counts by employment. Based on QWI data for 29 states, years 1998q2-2015q1

Turnover rates vary widely across industry, but hires and separations are positively correlated within industry



Find lower turnover rates in BLS survey measures, but similar patterns across industry

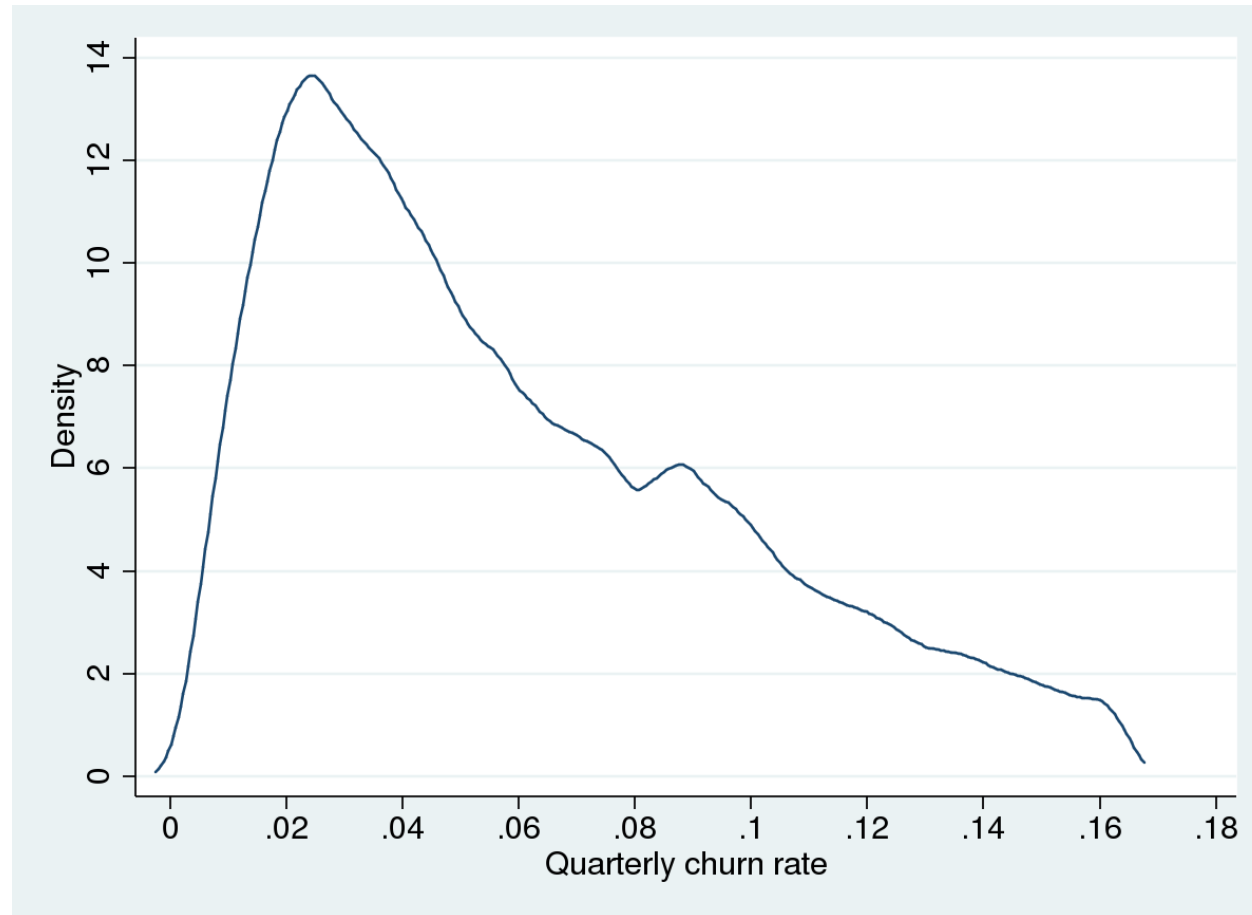
JOLTS=Job Openings and Labor
Turnover Survey



Measuring Churn

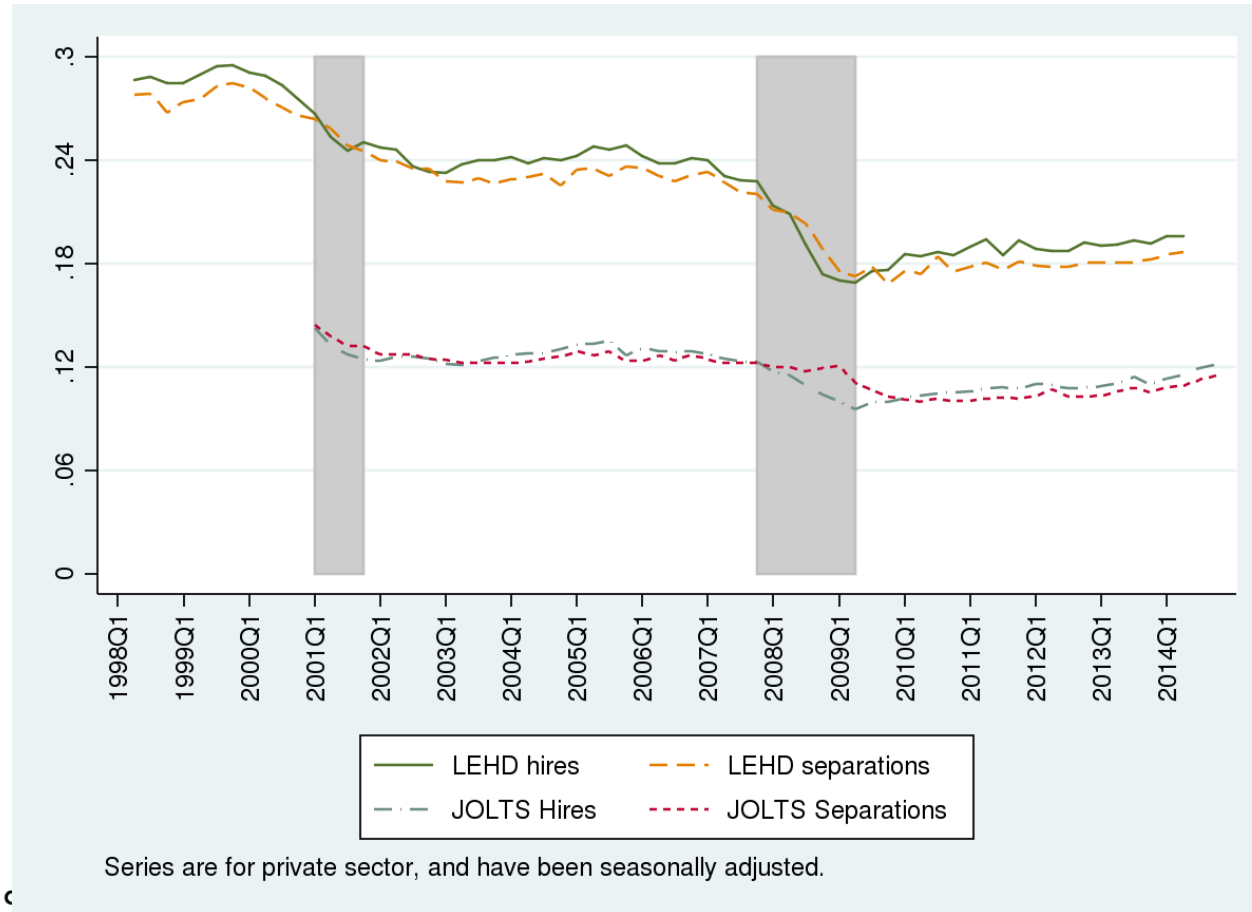
- Business expansion and contraction drives some hiring and separations. But typically employers have hires and separations at the same time.
- Churn is defined as hires or separations beyond those needed to accommodate a firm's increase or decrease in employment.
- E.g. In the current quarter Employer A hires 5 people, and has 2 employees leave. Employment increased by 3, so $\text{churn} = 2$
- Churn identifies the size of worker flows that occur to allow changes in who works where.
- QWI doesn't include churn measures, so we calculate churn rates from employer-level counts of hires and separations.

Churn rates vary widely across employers

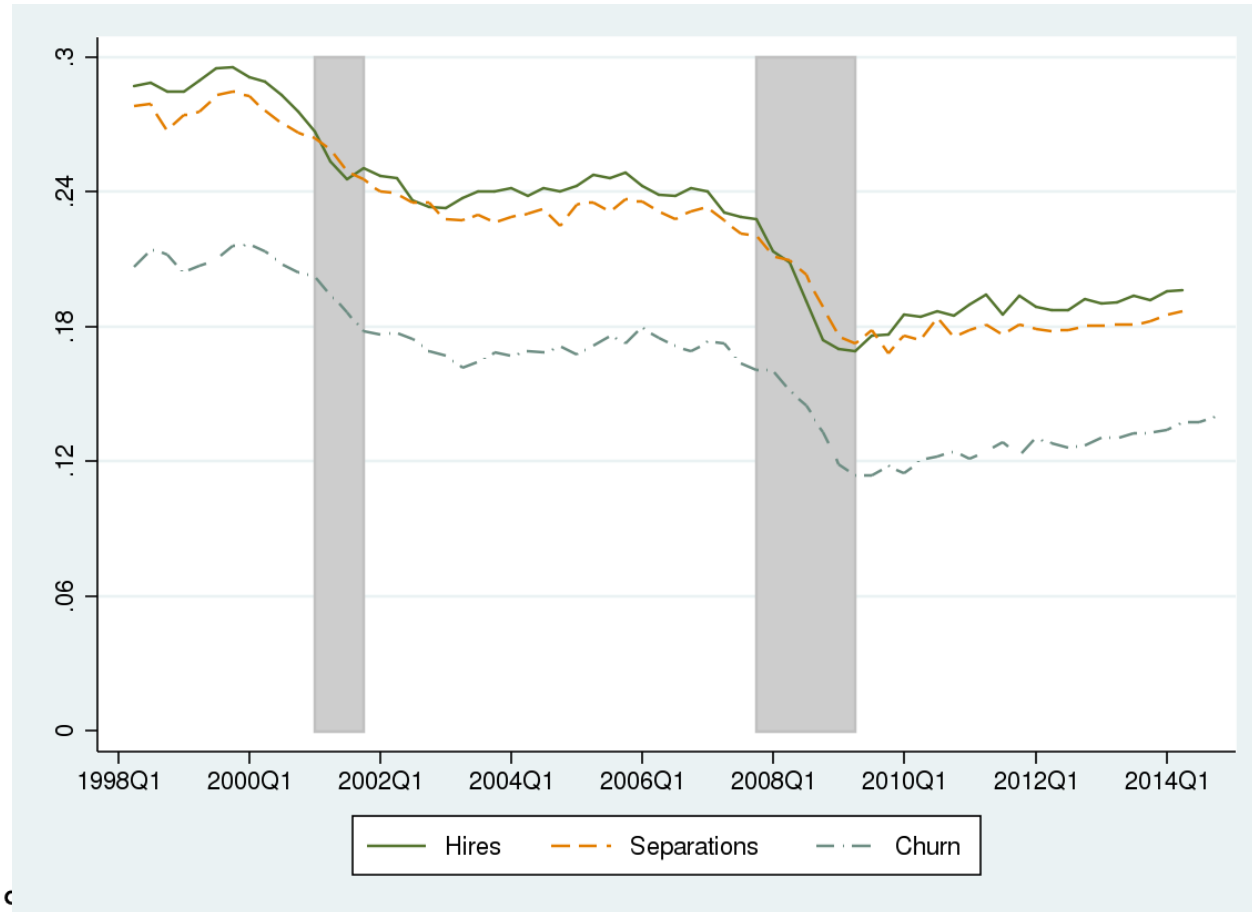


Notes: Figure gives kernel density estimates of the employment-weighted distribution of employer average quarterly churn rates. To protect confidential data, the bottom and top 5% of the distribution are not included in the estimates. The denominator for the quarterly rate is the average of beginning of quarter and end of quarter employment. Churn rates exclude jobs that both begin and end in the same quarter. Averages are calculated based on data for the private sector in 29 states over the period 1998q2-2015q1.

Hires and separations over the business cycle



Adding churn to the picture



Additional Resources:

- Kristin McCue, Principal Economist
- Kristin.mccue@census.gov
- 301-763-1835
- Related working paper : <https://ideas.repec.org/p/cen/wpaper/16-57.html>

- Q&A
- Thank You